

belt is a great convenience. A sandwich box and large thermos will be appreciated.

A good topi and spine pad are strongly recommended.

Wash your lines in fresh water after every day out, and dry in the shade. Clean your swivels and spoons in the same manner and grease them until in use again.

Be generous to your crew in the disposal of fish. It pays.

If these unpretentious notes should prove useful to visitors to one of the loveliest spots on the coast, they will have fulfilled their purpose.

## THE EARLY STAGES OF INDIAN LEPIDOPTERA.

BY

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### PART XIII.

(Continued from p. 425, Vol. xlv.)

### RHOPALOCERA

#### PAPILIONIDAE

##### *Chilasa clytia* L., *clytia*

Sevastopulo, *Journ. Bomb. Nat. Hist. Soc.*, xl, 393. 1938.

Sevastopulo, *Journ. Bomb. Nat. Hist. Soc.*, xlv, 78. 1943.

Ovum—Spherical, the base flattened. Orange, the surface covered with a waxy secretion. Laid singly on the upper or lower surface of a leaf of the food-plant.

1st instar—Head black. Body at first blackish with an olive-brown dorsal patch on the thoracic somites, a whitish dorsal patch on the middle and on the posterior portion of the body. Towards the end of the instar the black changes to an olive fulvous. Under a lens there is a subdorsal series of warts bearing black bristles, the 2nd, 3rd, 4th and 12th somites with an additional lateral series.

2nd instar—Head black and shining. Body black with a fulvous dorsal stripe interrupted by a white V-shaped mark on the 5th to 7th somites and a white blotch on the 11th and 12th somites. 1st somite with a large fulvous subdorsal tubercle, the other somites with tubercles as in previous instar. Osmeterium purple brown.

3rd instar—Similar. Traces of a fulvous lateral band from 1st to 4th somite. Body very shiny as it varnished.

4th (penultimate) instar—Similar. A lateral series of white spots on the 7th to 9th somites and a sublateral series on the 4th to 11th. A small white spot at the base of the subdorsal tubercles. The fulvous lateral band replaced by a creamy stripe joining the dorsal stripe on the 6th somite.

Described from larvae bred from ova found in Calcutta in March 1943.

*Papilio demoleus* L., *demoleus*.

Sevastopulo, *Journ. Bomb. Nat. Hist. Soc.*, xli, 311. 1939.

Immature larva—Head dark brown, the clypeus filled in with pale buff and with pale buff streaks on the cheeks. Ground colour of body dark coffee brown, a broad brown-spotted white lateral stripe on the thoracic somites, a creamy V-shaped mark with the apex on the dorsum of the 8th somite and the arms extending to the lateral area of the 5th, and an indistinct creamy lateral stripe on the 10th and 11th somites. Traces of a white sublateral line. 1st somite with a large chestnut subdorsal spine with a smaller spine just inside it and with a minute white lateral spine. 2nd and 3rd somites with a transverse series of six small dark brown spines, the centre pair the smallest. 4th and 5th somites with a dorsal pair only. 6th and 7th somites unspined. 8th to 12th each with a dorsal pair increasing in size from front to rear. Venter and prolegs olive brown. Legs blackish. Osmeterium brownish purple.

In the very early instars the whitish lateral markings are absent. Described from larvae found in Calcutta in March 1943.

#### DANAIDAE

*Euploea core* Cr., *core*.

Sevastopulo, *Journ. Bomb. Nat. Hist. Soc.*, xl, 397. 1938.

Ovum—Upright, fairly stout, the top a blunt point. Colour pale creamy yellow. Sculpturing consisting of numerous longitudinal ribs from apex to base crossed by transverse ribs, giving the impression of minute depressions separated by a network of raised lines. Laid singly on the upper or under surface of a leaf of the food-plant.

1st instar—Head black. Body pale yellow when first, hatched, becoming a deeper yellow tinged with green after feeding. The filaments of the later instars shewing as minute warts but not differentiated from the rest of the body in colour. Hairless. Legs black.

2nd instar—Head black. Body deep amber, tinged with green after feeding, and with traces of white transverse lines across the dorsum under a lens. Legs, prolegs and anal plate black. Filaments very short and black.

3rd instar—Head black with two white lines as in the adult. Body deep amber, tinged with green after feeding, and with indistinct white transverse lines dorsally. Legs, prolegs and anal plate black. Filaments actually and relatively longer than in the previous instar.

4th (penultimate) instar—Similar to final.

Described from larvae bred from ova found in Calcutta in March 1943.

*Danaus limniace* Cr., *mutina* Fruhs.

Sevastopulo, *Journ. Bomb. Nat. Hist. Soc.*, xl, 396. 1938.

Ovum—Upright type, rather dumpy. White, with numerous longitudinal ribs from base to just short of the micropyle, connected

by transverse ridges. Laid singly, usually on the underside of a leaf of the food-plant.

Young larva—Very pale grey-blue ringed with black. The filaments develop gradually with each instar.

Full grown larva—Among a number of larvae bred from ova, a fair proportion had the sublateral yellow band entirely obliterated by the broadening of the usual black line above it, in others the yellow band persisted as a broken line in the middle of a broad black stripe. In all cases bred examples were considerably darker than wild, the transverse lines broader and the ground colour more blue-grey.

Out of some hundred pupae obtained in the course of an experiment with differently coloured pupating sites, four were a dull amethyst colour at first and gradually changed to a pronounced blue-green instead of the usual jade-green.

Described from larvae bred in Calcutta in February 1943.

*Danaus chrysippus* L.

Sevastopulo, *Journ. Bomb. Nat. Hist. Soc.*, xl, 396. 1938.

Ovum—Upright, ending in a blunt point, with numerous ribs running from micropyle to base. Colour creamy white. Laid singly on the underside of leaves of the food-plant.

1st instar—Head black. Body greenish yellow, the filaments indicated by minute yellow warts. Clothed with short black hairs only visible under a lens. 1st somite with paired black dorsal spots.

Subsequent instars similar to the final except that the long filaments are proportionately smaller.

Larvae reared from ova in captivity are usually considerably darker than wild caught larvae. The transverse black lines are broader, those bounding the yellow dorsal spots often coalescing so that the spots are enclosed in a black band, and the black markings of the prolegs and venter are considerably extended.

The first and second instar larvae have the curious habit of eating a ring in the leaf, usually not quite through, and resting on the uneaten portion in the centre.

Described from larvae bred in Calcutta in March 1943.

SATYRIDAE

*Mycalesis perseus* F., *typhlus* Fruhs.

Ovum—Yellow green, spherical with the base flattened. Unsculptured. Laid singly on blades of grass. Laid 28-iii-43. Hatched 31-iii-43.

1st instar—Head black, terminating in two small knobs, clothed sparsely with fairly long hairs, white on the face, black on the knobs. Body white, turning green after feeding, and clothed with short colourless hairs. Moulded 3-iv-43.

2nd instar—Head black, clothed with short white bristles and terminating in two pointed processes. Body green, shagreened, with white points along the secondary rings. A dark dorsal line. Anal processes noticeable. Moulded 5-iv-43.

3rd instar—Similar. The head marked with green behind and with a green patch below the vertex, two lines of white spines laterally below the large processes. Anal processes pink. Moulded 7-iv-43.

4th instar—Head chestnut, the clypeus filled in with yellow and with a broad yellow lateral stripe which is continued across the face in a curve just below the cephalic processes. Processes brown in front, the apex darker, yellow behind with a chestnut line from base to the hind margin of the head. Head generally tuberculate and pubescent. Body similar to previous instar. Moulded 9-iv-43.

Final instar—Similar to preceding. The chestnut portions of the head a darker brown. Body with a paler green lateral stripe and a pale subspiracular line. Legs and prolegs green. Spiracles white ringed with brown. A number of larvae had the head in the last two instars dark nigger brown, and a few had a pinkish latero-ventral stripe in the last instar. Pupated 14-iv-43.

Pupa suspended by the cremaster from a pad of white silk. Head straight in front, thorax slightly keeled, wing cases with a distinct ridge above. Colour blue green, a slightly darker line dorsally on the abdomen, and a minute black speck half way along the antenna sheath. A fair proportion have a series of subdorsal white dots on the abdomen. A male emerged 20-iv-43.

Described from material bred from ova deposited by a Calcutta caught female.

*Ypthima hubneri* Kirby, *hubneri*

Sevastopulo, *Journ. Bomb. Nat. Hist. Soc.*, xlii, 39. 1940.

A batch of larva bred in Calcutta in February 1943 produced several pupae of the brown form. The description is as follows. Ground colour dull purple brown, strongly tinged with either grey or olive. Thorax darker than the abdomen and with a blackish line along the keel. Abdomen with traces of a white subdorsal line. Four waved transverse lines edged behind with white, the first short and just anterior to the end of the wing cases, the second extending between the ends of the wing cases, the third again shorter and just posterior to the wing cases, the fourth still shorter and still further back. Wing cases grey or olive, streaked and mottled with darker grey, and with a submarginal series of black specks.

## HETEROCERA

### ARCHIDÆ

*Utetheisa pulchelloides* Hamps, *vaga* Jord.

Ovum—Pale yellow, unsculptured, spherical with the base slightly flattened. Laid in small and irregular batches. Hatched on fourth day.

Larva—Head orange with an inverted white V. Body cream with a black subdorsal stripe, the inner portion of which is streaked and spotted with cream. Abdominal somites with a transverse black dorsal bar. Lateral area streaked and spotted with black, the black



marks roughly forming a series of Vs with the apices pointing forward. Each somite with four dorsal black warts, the anterior pair closer together than the posterior, bearing short single black hairs, those on the thoracic somites with longer white hairs. A subdorsal series of black warts ringed with dull orange bearing white hairs, and a very small lateral and sublateral series also with white hairs. Venter and prolegs cream, the latter marked externally with black, and with a black stripe, streaked and spotted with cream, dividing the ventral and lateral areas. Legs whitish, ringed with black.

Pupa in a very slight cocoon of white silk spun among litter. Pale chestnut, the thorax blackish except for a central stripe, wing-cases veined with black, abdominal somites each with a black ring. Leg and antenna sheaths striped with black. The amount of black varies considerably both in width and in depth of colour. Cremaster with a row of very fine, slightly hooked, longish spines.

Food-plant—*Heliotropium indicum*. Unlike *U. lotrix*, newly hatched larvae refused to feed on Dahlia.

Described from a full-fed larva found in Calcutta 17-iv-42, pupated 19-vi-42, and a female emerged 24-iv-42.

#### LYMANTRIDAE

*Lymantria nigra* Moore.

Sevastopolo, *Journ. Bomb. Nat. Hist. Soc.*, xlv, 417. 1944.

Ovum—Greyish purple, almost round, flattened above and below. Unsculptured (under a hand lens). Some thirty-six hours after being laid, the micropyle becomes slightly sunken and surrounded by a chalky grey ring. Laid in small batches, often heaped on top of each other, in nature probably in chinks of bark. Laid 24-ii-43. Hatched 6-iii-43.

1st instar—Head pale honey brown. Body brownish grey with a paler dorsal mark on the thoracic somites and another on somites 7 to 9. A lateral fringe of pale greyish hair.

2nd instar—Head greyish black. Body greyish black with a pale diamond-shaped blotch on the 7th to 9th somite. A subdorsal tubercle on the 1st somite. A lateral series of tufts of greyish hair.

3rd instar—Similar.

4th instar—Similar. 4th somite with an oblique subdorsal cream streak. 2nd and 3rd somites with traces of the dark transverse slit.

5th instar—Similar to final.

6th (penultimate) instar—Similar to final.

The larvae grow at very irregular rates, some spinning whilst others are only half grown.

Described from larvae bred from ova laid by a Calcutta caught female.

#### SPHINGIDAE

*Cephonodes hylas* L., *hylas*.

Sevastopulo, *Journ. Bomb. Nat. Hist. Soc.*, xli, 315. 1939.

Sevastopulo, *Journ. Bomb. Nat. Hist. Soc.*, xlii, 43. 1940.

A 4th instar larva found with a number of normal green ones, had the head pink tinged with green, the body pinkish. 1st somite and

anal flap with yellow tubercles. A faint whitish subdorsal line with a white-ringed black dot below it on somites 2 to 10. Traces of a darker dorsal stripe from head to base of horn. Legs brown. Prolegs and venter pinkish. Horn black, the under surface brown. Spiracles typical.

Full-grown larva—Head brown. Ground colour of body dull pinkish purple, the secondary segmental divisions black. 1st somite black, the first two rows of tubercles yellow, the rest white. Very faint traces of a pale subdorsal line, the spots below on somites 2 to 10 black ringed with white. Anal flap and claspers brown with white tubercles. Horn black, an orange brown basal spot on each side. Legs chestnut, the basal segment black. Prolegs buff, the feet pinkish. Abdominal somites with a broad pinkish ventral stripe. Spiracles typical.

Described from a larva found in Calcutta in November 1942.

*Deilephila nerii* L.

Sevastopulo, *Journ. Bomb. Nat. Hist. Soc.*, xl, 407. 1938.

Sevastopulo, *Journ. Bomb. Nat. Hist. Soc.*, xliii, 412. 1942.

A penultimate instar larva found in Calcutta in December 1942 had the head and body pale cafe-au-lait colour, the area above the lateral stripe very slightly tinged with olive, that below with pinkish. Lateral line yellow, edged below indistinctly with mauve. Ocellus white with a dark blue ring as usual. Horn as usual. Legs salmon pink. Venter and prolegs cafe-au-lait. Spiracles black. The head with the labrum greenish yellow.

This larva unfortunately died before moulting into the final instar.

LIMACODIDAE

*Thosea tripartita* Moore.

Forsayeth, *Trans. Ent. Soc.*, 376. 1884.

Hamps, *Fauna Brit. Ind.*, Moths, i, 378. 1892.

Hering, *Seitz Indo-Austr. Bombyces*, x, 713. 1932.

Head green, marked with brown above the mouth parts, retractile. 1st somite green, retractile. Colour yellowish green, the dorsal area between the subdorsal series of scoli bright canary or greenish yellow. The first form with a double purple-red dorsal line expanding into spots on the 4th, 7th and 10th somites, the second form with the lines greenish blue but the spots on the 4th, 7th and 10th somites purple-red. A paired dorsal series of glandular looking marks, consisting of a dull bluish speck surrounded by a dull yellow ring, the whole edged by a dull bluish line, but barely visible without a lens. A subdorsal series of ten short reddish scoli tufted with green or orange bristles, and a sublateral series of ten longer green scoli tufted with green or pinkish bristles and pointing outwards, the first scoli of each series very much shorter than the others. A series of irregular depressed marks edged by a yellow line between the two series of scoli. Ventral surface pale green. Turns pink before pupation.

Cocoon of the usual hard Limacodid type, oval, dark brown in colour. Empty pupa skin brownish yellow.

Food-plant—*Zizyphus jujuba*.

Described from a full-grown larva found in Calcutta 15-x-42, spun 19-x-42 and a female emerged 3-iv-43.

Hampson and Seitz both give similar descriptions, the latter being 'Larva green, with dorsal and lateral rows of blue spots and spined appendages. On Ricinus and other plants.'

*Altha melanopsis* Strand.

Head pale brown, retractile, 1st somite pale brown, retractile. Body pale bluish green, somewhat frosted in appearance; with a dorsal, two subdorsal and two lateral rows of pale yellow specks, the specks of the inner subdorsal row alternating with those of the outer and the dorsal row. A slightly paler stripe bounded by the subdorsal rows of specks. Venter yellowish green. Shape oval and highly convex.

Cocoon of the usual hard Limacodid type, oval in shape and chalky white in colour, where the cocoon is attached to the support the colour is dull brown. Spun among leaves and concealed under a slight web of white 'frothy' silk. Empty pupa skin brownish yellow.

Food-plant—Tea.

Described from full-fed larvae and cocoons received from Tukdah, Ghoom P.O., in November 1942, and from which imagines emerged in Calcutta in January 1943.

#### NOCTUIDAE

*Sideridis (Borolia) venalba* Moore.

Ovum—Spherical, the base flattened. Very pale green with opalescent reflections and very minutely sculptured, this sculpturing barely visible under a hand lens. The ova turn deep straw yellow and finally leaden grey immediately before hatching. As seems usual in the genus, they shrivel considerably. Laid in batches in the axils of blades of grass and covered with a coating of gummy cement. Laid 16-i-43. Hatched 24-i-43.

1st instar—Head honey colour. Body dull leaden grey. Clothed with sparse, short hairs. Becomes green after feeding. Moves with a slight looping motion.

2nd instar—Head honey colour. Body grey, turning green after feeding, with a whitish dorsal, subdorsal and lateral line.

3rd instar—Head honey colour. Body greyish green with a broad double purple-brown dorsal line, a narrow double purple-brown subdorsal line and a broad purple-brown sublateral line, below which is a very fine line. The area between the dorsal and subdorsal lines darker than the rest of the body. Sublateral and ventral area whitish.

4th instar—Head honey colour. Ground colour of body pale brown, more or less tinged with green. Marked as follows:—a pale dorsal line edged with purple-brown, a purple-brown subdorsal line, a narrow purple-brown spiracular stripe with a paler purple-brown line above and separated from it by a pale line, and a narrow pale subspiracular stripe with a greenish line down the middle.

Sublateral and ventral areas greenish. Legs honey colour. Prolegs greenish.

5th instar—Head honey colour, a faint dark stripe from the vertex along the clypeus. Ground colour of body pale creamy yellow, obscured to a great extent by the minute specks composing the markings. A pale dorsal line, edged by a dark brown line, and followed, in this order, by a pale purple-brown line, a line of the ground colour, a purple-brown line, a line of the ground colour, a narrow brownish-orange stripe edged on each side by a dark purple-brown line, a line of the ground colour, a narrow blackish-brown stripe with a central orange-brown line, and a broad whitish stripe with a central olive-brown line. Venter pale olive-brown, legs and prolegs very pale olive-brown. When contracted, the intersegmental folds orange.

Final instar—Similar to preceding, except that the head bears a lateral dark stripe, in continuation of the dark lateral stripe of the body, and the area between this and the central stripe is reticulated with darker. Spiracles ringed with purple-brown.

Pupa in a small subterranean cocoon of thin white silk covered with earth. Rather long and slender, fairly dark mahogany colour becoming paler ventrally on the abdomen. The anterior margin of the 4th, 5th, 6th and 7th abdominal somites with a transverse dentate dorsal ridge, the teeth rather darker in colour than the rest of the dorsum. Cremaster two fairly long, downcurved, stout spines, with a shorter spine slightly behind and outside on each side.

Food-plant—Grasses.

Described from larvae bred from ova laid by a Calcutta caught female, one of which buried itself 18-ii-43 and a male emerged 28.ii.43.

*Sideridis yu* Guen. (*exempta* Wlk.)

Sevastopulo, *Journ. Bomb. Nat. Hist. Soc.*, xlv, 422. 1944.

Ovum—Almost spherical, flattened slightly at base, unsculptured under a hand lens. At first very pale green, almost white, turning a dull purple grey before hatching. Laid in a blade of grass folded longitudinally by the female and held together by a glassy cement. As usual in this genus, the ova shrivel considerably. Laid 26-ii-43. Hatched 3-iii-43.

1st instar—Head honey colour. Body pale greyish white, almost transparent, when first hatched, turning green after feeding. Hairless.

2nd instar—Head honey colour. Body orange-brown, turning green after feeding, with a whitish dorsal and subdorsal line, a double purple brown lateral line and a broad white sublateral stripe.

3rd instar—Similar.

4th instar—Very similar. Under a hand lens the head has a smoky line from the vertex to outside the mandibles, the sides reticulated with smoky. Body with a whitish dorsal line edged with brownish purple, a purple brown subdorsal line edged with whitish, a double purple brown line, a whitish line, another double purple brown line and a broad white sublateral stripe. Venter, legs and prolegs pale olive brown.



5th instar—Very similar to preceding, but much less green in general appearance and with the sublateral white stripe somewhat duller except on the thoracic somites. Towards the end of the instar, the ground colour is a brownish purple and the longitudinal markings almost disappear.

Final instar—At first a dark olive brown, with traces of a pale dorsal and subdorsal line in addition to the subspiracular stripe and white spots mentioned in the above-quoted description. As the instar advances, the ground colour becomes paler and the traces of the dorsal and subdorsal lines disappear.

Described from larvae bred from ova deposited by a Calcutta caught female.

*Prospalta dolorosa* Wlk.

Hamps., *Cat. Lep. Phal.*, vii, 324. 1908.

Warren, *Seitz Indo-Austr. Noctuidae*, xi, 345. 1937.

Head greenish grey, speckled with white. Body greenish grey, streaked and mottled. Thoracic somites each with a transverse series of four dark-ringed white specks, abdominal somites with two dorsal pairs, the anterior pair closer together than the posterior. A diffused pale spiracular stripe. 11th somite humped dorsally, with a diffused pale line running over the hump from the spiracular stripe. Lateral area with a series of three dark-ringed white specks arranged in a triangle on each somite. Spiracles brown, ringed with black. Under a lens the ground colour appears to be dark olive brown covered with a net-like pattern of cream lines. Becomes suffused with purple-pink before pupation.

Pupa subterranean in a slight earthen cocoon. Orange brown, the thorax, wing cases and intersegmental rings olive. Cremaster two slightly divergent spines.

Described from a full-fed larva found in Calcutta 14-iii-43, buried 15-iii-43, and a female emerged 25-iii-43.

Both Hampson and Seitz give the same description:—'Larva brown. Food-plant *Conyza balsamifera*'.

GEOMETRIDAE

*Agathia laetata* F.

Sevastopulo, *Journ. Bomb. Nat. Hist. Soc.*, xl, 690. 1939.

Ovum—Oval, flattened, the upper surface slightly depressed. Pale green, slightly iridescent. Deposited singly on the edge of young leaves of the food-plant.

Young larva—At first yellowish, later pale green. In the penultimate instar with a whitish ventral stripe on the anterior abdominal somites, and the prolegs mottled externally with brown and whitish.

Adult larva—My above-quoted description is rather lacking in detail and the following is a fuller one. Head brown, marked with darker. 1st somite bilobed, the ends of the lobes brown. Ground colour dark green, varying from an olive to rather a yellow tint, and suffused along the dorsum and across the intersegmental areas with purple, the amount of suffusion varying from almost complete obliteration.

tion of the green ground to a slight suffusion on the posterior somites. 2nd and 3rd somites each with a transverse series of four minute dark specks. 4th to 12th somites each with an anterior and posterior pair dorsally. A pair of pale dorsal specks between the 4th-5th, 5th-6th, 6th-7th, 7th-8th, 8th-9th and 9th-10th somites, some examples with an additional subdorsal speck. The 11th and 12th somites each with an indistinct pale V-shaped dorsal mark, which may be almost obsolete. Proleg marked externally with a whitish patch mottled with brown. Legs dark brown. Venter green with a broad white stripe from the base of the third pair of legs to the 6th somite, this stripe containing a double purple line. In some examples the stripe is continued faintly to the 8th somite.

Pupa in a slight web between two leaves, through which numerous small holes are gnawed. Colour pinkish, sparsely speckled with black, with traces of a dull olive dorsal stripe and transverse stripes on the intersegmental areas. 5th to 11th somites each with a pair of small depressed pits on the dorsum anteriorly and the 8th to 10th somites each with a rather larger pit sublaterally, the one on the 9th somite slightly below these on the 8th and 10th, the dorsal series only visible under a lens. Thoracic spiracle placed in a sunken spot. Cremaster spade-shaped and ending in a cluster of hooked spines.

Described from larvae bred from ova found in Calcutta, one of which pupated 26-xi-42, and a male emerged 7-xii-42.

*Agathia lycaenaria* Koll.

Prout, *Seitz Indo-Austr. Geometridae*, xii, 67. 1932.

I am unable to detect any real difference between the larva of this species and that of *A. laetata* (above), although it is possible that the white ventral stripe is a little longer in *lycaenaria*.

Four apparently identical larvae turned to four, apparently similar, pupae and eventually produced two imagines of each species. On closer examination it was noticed that the lateral pits provide a definite distinction, those of *lycaenaria* are considerably larger and darker in colour, being clearly visible to the naked eye whilst those of *laetata* are barely discernible without a lens. The cremaster of *lycaenaria* has the sides straighter and longer, that of *laetata* being blunter with curved sides.

Food-plant—Oleander (*Nerium odorum* Soland.)

Described from larvae found in Calcutta, one of which pupated 2-xii-42, and a female emerged 13-xii-42.

Seitz gives the following description:—'Some Queensland larvae in the Tring Museum (F. P. Dodd) are of moderate thickness, almost uniformly cylindrical, the head bilobed, the prothorax projecting slightly over it and bearing on each side a small and not very sharp triangular prominence anteriorly; yellow-brown, mottled or streaked with reddish, appearing to the naked eye uniform in colour.'

*Thalassodes veraria* Guen.

Sevastopulo, *Journ. Bomb. Nat. Hist. Soc.*, xliii, 415. 1942.

This larva also has a green form, the head and body being green with traces of a dark dorsal line, shewing mainly as a dark purple

dot on the intersegmental areas of the abdomen, and with a sublateral dark brownish spot on the intersegmental areas. Legs, prolegs and venter green. Spiracles very small, pale buff. In some examples the points of the head and the dorsum are suffused with reddish chestnut.

The pupa is also variable, in addition to the buff form there is one which is olive green speckled with darker olive and blackish and with a very dark olive dorsal line, the wing cases yellower and un-speckled but with the costal margin suffused with smoky olive. Another form is greenish buff, the thorax smoky, with a blackish dorsal stripe on the abdominal somites and with blackish streaks and specks arranged roughly in transverse lines, the wing cases pale smoky buff.

Food-plant—These green forms were found feeding on Rose.

Described from a full-fed larva found in Calcutta 30-xi-42, pupated 4-xii-42, and a male emerged 13-xii-42.

#### PYRALIDÆ

##### *Galleria mellonella* L.

Head dark reddish brown. Body dirty grey, rather paler on the sublateral and ventral areas. 1st somite with a semicircular black-brown dorsal plate, divided down the centre. Head and body with sparse single colourless hairs. Legs pale brown. Prolegs whitish grey.

Pupa in a spindle-shaped cocoon of tough white silk, spun in one of the tunnels in which it has lived. Colour very pale chestnut, becoming darker on the centre of the dorsum, the thorax darkest. A distinct dorsal ridge on thorax and abdomen. Spiracles chestnut. Cremaster a transverse bar ending in two points.

Feeds on wax, etc. in the combs of bees, making silk-lined tunnels in which it lives.

Described from a full-fed larva found in Calcutta 7-ii-43, spun 8-ii-43, and a female emerged 25-ii-43.

(To be continued)

#### Corringendum

'Vol. xli, p. 76.

The larva described as *Andraca bipunctata* Wek. belongs to *Prismosticta fenestrata* Btlr. This species was first described as a Bombycid but was subsequently transferred to the Eupterotidae. The larva shews that the original describer was correct in his classification. A description of the true larva of *A. bipunctata* will appear in a later part of this paper.